

Miscellaneous.

Celestial Phenomena.

The accompanying observations on the planets of our system are from the pen of Thomas Dick—the Christian Philosopher, and were published recently in one of the Dundee papers. They are very interesting.

For some time past the starry heavens unobscured by clouds or mists, have presented a pretty clear field for the astronomical observer; but very few of the planetary orbs have yet come forward for evening observation.

The principal planet to be seen during the evening is the planet Saturn. This planet may be seen due south about twenty minutes past 6 p. m., at an altitude of nearly 37 degrees above the horizon, till after midnight. Its ring, when viewed through a good telescope, now appears much more open than it did last year about this time, and although it lies applicable to the line of vision, and appears like a long ellipse, yet it may be plainly distinguished to be a ring surrounding the body of Saturn, appearing somewhat like a handle on each side of his disc. This is one of the most wonderful and interesting pieces of celestial mechanism to be found within the limits of the solar system. It has been supposed by many eminent astronomers that the lately discovered planet Neptune is also surrounded with a ring; but this point has not been so satisfactorily determined as we could wish, though it seems to be admitted by all who have viewed this planet with high powers, that there is an appearance about Neptune that must either be a ring or some other unknown appendage.

Within these few weeks past intelligence has arrived from America that the astronomers at the Observatory of Cambridge, State of Massachusetts, had discovered a third ring round the planet Saturn—a phenomenon which had been for some time expected. It is announced that this important fact was ascertained on the night of the 15th November last. This ring is said to be interior to the two others; and therefore its distance from the body of Saturn must be comparatively small. It is said to have been observed through the great Equatorial telescope, with powers varying from 150 to 900. The evening on which it was discovered was remarkably fine, perhaps one of the finest since the establishment of the Observatory.

The telescope in this Observatory—which was procured from Munich, Germany, and is 25 feet long and fourteen and a half inches aperture—is perhaps one of the finest achromators now in existence. The eighth satellite of Saturn was also discovered at this Observatory by Mr. Bond, the superintendent, about two years ago.

THE PLANET JUPITER.—This planet is at present a morning star, but, ere long, it will adorn our evening sky. It may be seen shining in splendor about four o'clock in the morning, in the south-eastern part of the sky, near a star of the second magnitude. This is the largest planet of the solar system, which sweeps through the heavens at the rate of twenty-nine thousand miles an hour, and revolves round its axis in the course of nine hours fifty-six minutes. It begins rising on the 1st of February, 1851, in a direction east by south, about eleven o'clock in the evening, and will continue every succeeding evening to rise somewhat earlier. About the beginning of March it will rise about nine p. m., and will be in a position for telescopic observation between ten and eleven o'clock. It will then continue to adorn our evening sky throughout the months of April, June, July, August, and Sept., till near the middle of October—on the 26th of which month it is in conjunction with the sun, soon after which it will be seen only in the morning. Were this planet peopled with inhabitants in the same proportion as England, that is 280 to a square mile, its surface would be sufficient to contain a population of 6,967,520,000,000, or nearly seven billions of inhabitants, which is more than eight thousand seven hundred times the present po-

ulation of our globe, and nearly fifty times the number of human beings that have existed on the earth since the creation of man.

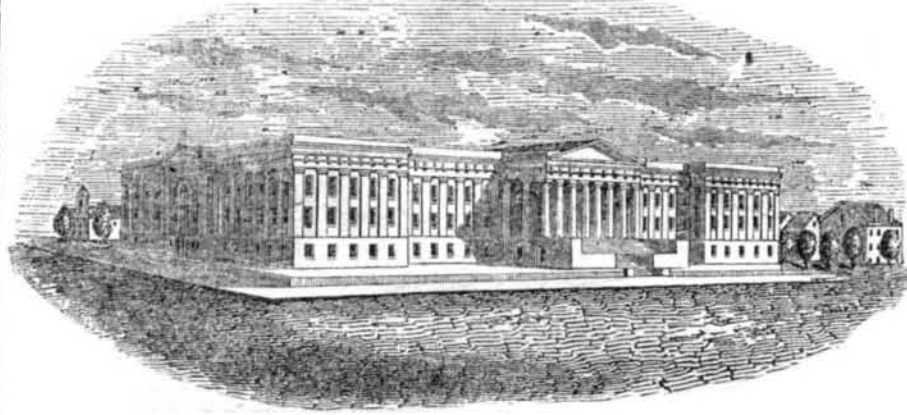
THE PLANET MARS.—This planet, on account of its great southern declination, and its distance from the earth, will not be much noticed by common observers for two or three months to come. About the months of October, November, and December it will be more conspicuous, as it approaches to its period of opposition to the sun, when it will appear of a ruddy color, and nearly approaching to the apparent magnitude of Jupiter.

THE PLANET VENUS.—This planet was an evening star from the beginning of March till the 16th of December, but was very seldom seen in the evenings, for four or five months past, on account of its great southern declination. When the sun set, it was just verging on the horizon, and generally set a few minutes after him. It passed the point of its inferior conjunction on the 16th December, and is now seen in the morning in the south-eastern quarter of the heavens a little before sun rise. It may be seen about mid-day with an equatorial telescope, and with this in-

strument it appears at present like a fine slender crescent, a little to the westward of the sun. It will continue a morning star till the 30th of September, 1851, after which it will be an evening star, but will not be much noticed by common observers, till about two or three months afterwards.

THE PLANET MERCURY.—This planet, which is so seldom seen with the naked eye, will be in good position to be seen about a week before and a week after the 27th of April, when it will be in pretty high north declination.

THE PATENT OFFICE.



Last week we presented the plan views, description, and history of the Patent Office Edifice. We now present a perspective view of the building, and no one can fail to admire the elegance of the design and the harmony of all its parts. This building was originated expressly for the purpose of conducting the business connected with the patents, and no other. No building was ever originated for a nobler or wiser object, and no country in the whole world can boast of such another Institution. We take some pride, and so do all those who have a spark of pure patriotism in their bosoms, in looking upon and talking about such an Institution. It is not sectional in its interests, nor are its objects in any way connected with party politics as a matter of party policy. (This in the abstract not the real track.) It would be very wrong and unjust to divert this building to any other purpose than was originally intended, and we confidently believe that the attempt to do so will operate politically against the devisers of it. We speak advisedly on this point, and with a perfect knowledge of a very wide spread feeling on the subject. Were we the predominant political party who proposed such a measure, we know that we might expect an opposition decidedly hostile, and effective for party purposes to ensure defeat at some future day. On Wednesday, last week, Senator Walker offered a resolution, calling on the Commissioner of Patents to report whether the present Patent Office building is not sufficient for the business of the office, if the national curiosities be removed from the upper story. After debate the resolution was addressed to the Secretary of the Interior instead of the Commissioner of Patents, and adopted.

This shows how the scheme is working. The Secretary of the Interior, Mr. Stewart, reports in favor of applying the Patent Office to the use of his Department; and here, don't you see, the Senate resolves to call upon him for information on the subject. This is something like appointing a judge to preside and decide in his own case. The resolution was diverted from its original intention—calling upon the Commissioner of Patents. We suppose that some one said the Commissioner held a different position from the old Commissioner—that he was merely like a clerk under the Secretary of the Interior. The late Commissioner, Mr. Burke, while connected with the Union, blamed Mr. Ewbank for surrendering some of the privileges and powers of his office. We are afraid that this is so, and we regret it exceedingly. We sincerely hope that all schemes that have for their object the permanent appropriation of any part or parcel of the Patent Office from its real original intent, will be defeated. We know of no class of men

who have benefitted our country so much as the inventors, and some respect should be paid to their feelings. The invention of the cotton gin, the steamboat, the spike machine—card machines, turning machines, the telegraph, and nearly ten thousand other patented inventions, are some evidences of the benefit conferred upon our country by the genius and labors of inventors.

At the present moment there is great excitement in Washington and out of it, among inventors and those interested in patents. We have received a pamphlet of charges against the Commissioner, and a number of papers containing different opinions and statements of different parties. We have also received a copy of the National Intelligencer of last Monday, containing a defence of Mr. Ewbank, by himself; it is an earnest and able defence of his extension of the patent of E. M. Chaffee, for which charges have been brought against him by Mr. H. Day, of this city. We have no party feelings nor prejudices; we have spoken what we honestly believe to be right and just respecting principles and actions.

The Architect of the Patent Office.

The architect of the Patent Office edifice, a description of which we presented last week, is Mr. Wm. P. Elliot, of Washington, D. C., a civil engineer and architect, and now known for his professional abilities. He had been Draughtsman and Chief Clerk in the Patent Office before 1827. He then went to Europe to study architecture, from whence he returned in 1834, and it was after that he designed and planned the Patent Office, exhibiting a cultivated taste and great professional acquirements. He also planned the new Treasury Buildings, and has been engineer of several canals and railroads.

Chain Belts.

Can any of our correspondents give us any information about chain belts—their manufacture, different kinds, the power required to drive them, their application and price. To those who may make them we may be enabled to do some good.

We are requested to state that the address of L. D. Grosvenor is South Groton, Mass., instead of Harvard, as given in our List of Patents in No. 17.

We have not heard anything for a few weeks about the great Pacific Railroad. Keep the ball a-rolling.

The Editor of the British Colonist, at Halifax, N. S., will accept our thanks for the favorable notice of the Scientific American which appeared in his interesting journal of the 11th ult.

American Celestial Phenomena.

ASTRONOMICAL OBSERVATIONS AT HARVARD.—The following extract from President Spark's annual report to the overseers of the college, will show what has been done there last year, and how it corroborates what the Christian Philosopher says about the Great Telescope:

"The same activity and success have been manifested at the observatory which have heretofore appeared in that establishment. The great refracting telescope continues to justify the sanguine anticipations originally formed of its superior power and admirable construction. Regarding this observatory, as acting in cooperation with others in various parts of the globe, for the promotion of astro-

nomical science, the director has wisely adopted a method of proceeding by which his observations have been directed to new and unexplored objects, rather than to the task of repeating or verifying what has already been done. The nebulae, which appear as dim patches of light through ordinary instruments, are separated by the great refractor into brilliant clusters of stars with their positions and various magnitudes so distinctly defined that they may be easily transferred to a map. The success of the director in delineating the beautiful and remarkable nebula in Orion, is well known to astronomers, and he has been for some time employed upon another cluster scarcely less remarkable in the constellation of Hercules. The measurement of double stars, and the close inspection of the planets, and of comets, when in positions not to be reached by common instruments, have likewise called into use the powers of the great telescope. Three new stars were discovered, during the past year, in the neighborhood of the Trapezium, in the nebula of Orion; and also a variable star, which appears and disappears at intervals of a few weeks; but the observations have not, as yet, been sufficiently numerous to furnish data for ascertaining accurately its period. The great telescope has also revealed to the searching eye of the observer, a third and interior ring of Saturn, which had escaped the power of all other instruments. The indefatigable and skilful labors of the assistant observer, Mr. George P. Bond, enabled him to detect two new comets, one in May, and the other in August, before either of them had been seen in Europe. Special attention has been given to the accurate adjustment of time-keepers, by observing the transits of stars over the meridian, aided by the long experience of the director in this branch of mechanical science. By a specific arrangement, made for that purpose, the motion of every railroad car in the commonwealth is regulated by the time at the Observatory. The vast benefit thus conferred on the public will be at once recognized, when it is considered how much human life often depends on the accuracy and uniformity of time, with which all the movements on the railroads are directed. An important accessory to the Observatory is an apparatus for applying the electro-magnetic communications to astronomical purposes. Telegraphic wires extending from the Observatory and connecting with the great lines of telegraphs, convey the result of an observation instantaneously to an observer at a remote place, thus affording the means of an immediate and precise comparison of time. By this process the differences of longitude are ascertained with the greatest exactness, an attainment of the utmost importance.